

IN THE SPECIFICATION

Please replace the paragraph beginning at Page 3, line 32, with the following amended paragraph:

FIG. 1 shows an IP network 10 including one or more Outage Measurement Systems (OMSs) 15 located in different network processing devices 16. In one example, the network processing devices 16 are access routers 16A and 16B, switches or core routers 16C. However, these are just examples and the OMS 15 can be located in any network device that requires outage monitoring and measurement. Network Management System 12 ~~Network Management Systems (NMSs) 12 are any server~~ is one or more servers or one or more other network processing ~~device~~ devices located in network 10 that process ~~processes~~ the outage data generated by the OMSs 15.

Please replace the paragraph beginning at Page 4, line 5, with the following amended paragraph:

Access router 16A is shown connected to customer equipment 20 and another access router 16B. The customer equipment 20 in this example is a router ~~are routers~~ but can be any device used for connecting endpoints (not shown) to the IP network 10. The endpoints can be any personal computer, Local Area Network (LANs), T1 line, or any other device or interface that communicates over the IP network 10.

Please replace the paragraph beginning at Page 4, line 14, with the following amended paragraph:

In one example, the OMS 15 is selectively located in network processing devices 16 that constitute single point of failures in network 10. A single point of failure can refer to any network processing device, link or interface that comprises a single path for a device to communicate over network 10. For example, access router 16A may be the only device available for customer equipment 20 to access network 10. Thus, the access router 16A can be considered a single point of failure for customer router ~~routers~~ 20.

Please replace the paragraph beginning at Page 5, line 7, with the following amended paragraph:

FIG. 3 shows how a hybrid two-tier approach is used for processing outages. A first tier uses the router 16 to autonomously and automatically perform local outage monitoring, measuring and raw outage data storage. A second tier includes router manufacturer tools 78, third party tools 76 and an NMS 12 ~~Network Management Systems (NMSs) 12~~ that ~~either individually or in combination correlate and calculate~~ correlates and calculates outage values using the outage data in the router 16.

Please replace the paragraph beginning at Page 5, line 30, with the following amended paragraph:

FIGS. 4A and 4B show the different functional elements of the OMS 15 operating inside the router 16. Outage measurements 44 are obtained from a router system log 50, Fault Manager (FM) 52, and router processor 30. The outage measurements 44 are performed according to configuration data 62 managed over a Command Line Interface 58. The CLI commands and configuration information is sent from the NMS 12 or other upper-layer outage tools. The outage data 42 obtained from the outage measurements 44 is managed and transferred through MIB 56 to ~~one or more of the NMS~~ NMSs 12 or other upper-layer tool ~~tools~~.